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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/707,235	11/29/2003	David R. Hall	66.0042	1234

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EXAMINER

COLLINS, GIOVANNA M

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/707,235

Applicant(s)

HALL ET AL.

Examiner

Giovanna M. Collins

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20040601, 20040420</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because drawing labeled "Fig. 10" should be changed to - - Fig. 1 - -. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities:

In paragraph 0037, the phrase "conduit 34" should be changed to - - conduit - - and the phrase "covering 34" should be changed to - - covering- -.

In paragraphs 0044 and 0045, all references to the phrase "transmission element 58" should be changed to - - transmission element 56 - -.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Maimets 5,725,026.

Maimets discloses (fig. 1) a liner insertable into the central bore of a downhole tool, the central bore being characterized by a standard diameter along the central portion of the tool, and a narrowed diameter proximate the ends of the tool, the liner comprising: a resilient material (1) rolled into a substantially cylindrical shape and having an outside diameter, wherein the outside diameter of the resilient material is variable to allow the resilient material to move through the narrowed diameter of the downhole tool; and the outside diameter of the resilient material, once past the narrowed diameter, is expandable within the standard diameter of the downhole tool.

Referring to claim 2, Maimets discloses the resilient material (1) expands the outside diameter of to contact the inside surface of a central bore (see fig. 5).

Referring to claim 20, Maimets discloses a method for lining the central bore of a downhole tool, the method comprising: providing a resilient liner (1) formed into a substantially

Art Unit: 3672

cylindrical shape, the resilient liner having an outside diameter sized to fit within the central bore inserting the resilient liner into the central bore; and expanding, by the resilient material, the outside diameter of the resilient material within the central bore.

5. Claims 1-3 and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Penza 2002/0170612

Penza discloses (fig. 18) a liner insertable into the central bore of a downhole tool, the central bore being characterized by a standard diameter along the central portion of the tool, and a narrowed diameter proximate the ends of the tool, the liner comprising: a resilient material (1081) rolled into a substantially cylindrical shape and having an outside diameter, wherein the outside diameter of the resilient material is variable to allow the resilient material to move through the narrowed diameter of the downhole tool; and the outside diameter of the resilient material, once past the narrowed diameter, is expandable within the standard diameter of the downhole tool.

Referring to claim 2, Penza discloses the resilient material (1801) expands the outside diameter of to contact the inside surface of a central bore (see figs 4a-4b).

Referring to claim 3, Penza discloses a transmission line (paragraph 0002) is routed between the central bore and the outside diameter of the resilient material.

Referring to claim 5, Penza discloses resilient material (1801) protects the transmission line from material traveling through the bore.

Referring to claim 6, Penza discloses a cannal (at 1809).

Art Unit: 3672

Referring to claim 7, Penza discloses two mating surface (at 1803 and 1807) that mate to form the cylindrical shape

Referring to claim 8, Penza discloses moving the mating surfaces (1803,1807) changes the diameter of the material.

Referring to claim 20, Penza discloses a method for lining the central bore of a downhole tool, the method comprising: providing a resilient liner (1801) formed into a substantially cylindrical shape, the resilient liner having an outside diameter sized to fit within the central bore inserting the resilient liner into the central bore; and expanding, by the resilient material, the outside diameter of the resilient material within the central bore (see figs 4a-4b).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-5,11-15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Graaf 4,220,381, in view of Denison 4,095,865 and Maimets '026.

Van der Graaf discloses (fig 3) a liner insertable into the central bore of a downhole tool, the central bore being characterized by a standard diameter along the central portion of the tool, , the liner comprising: a resilient material (31''). Van der Graaf does not discloses the liner is a sheet or the drill tool has a narrowed diameter at the ends. Denison teaches (fig. 1)a downhole tool with narrower diameter at the ends. This type of configuration is well known in the art. Maimets teaches a liner that is a resilient sheet material rolled in a cylindrical shape and is

Art Unit: 3672

expandable within a downhole tool. As, it would be advantageous to have the liner be a sheet material that can easily fit in various sizes of downhole tool and one of ordinary skill in the art would be familiar with downhole tool with narrower diameter at the ends, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the liner disclosed by van der Graaf to have resilient sheet roll into a cylindrical shape and be inserted in a downhole tool with narrower diameter at the ends.

Referring to claims 2 and 12, Maimets teaches the resilient material (1) expands the outside diameter of to contact the inside surface of a central bore (see fig. 5).

Referring to claims 3 and 13, van der Graaf discloses a transmission line (30'') is routed between the central bore and the outside diameter of the resilient material.

Referring to claims 4 and 14, van der Graaf discloses the resilient material (31'') keep the transmission line (30'') in contact with the inside surface of the central bore.

Referring to claims 5 and 15, van der Graaf discloses resilient material (31'') protects the transmission line from material traveling through the bore.

Referring to claim 11, van der Graaf discloses the method for lining the central bore of a downhole tool comprising inserting a resilient material into the central bore of the tool. Van der Graaf does not disclose rolling the resilient material or expanding or the drill tool has a narrowed diameter at the ends. Denison teaches (fig. 1) a downhole tool with narrower diameter at the ends. This type of configuration is well known in the art. Maimets teaches a liner that is a resilient sheet material rolled in a cylindrical shape and is expandable within a downhole tool. As, it would be advantageous to have the liner that is rolled that can easily fit in various sizes of downhole tool and one of ordinary skill in the art would be familiar with downhole tool with

Art Unit: 3672

narrower diameter at the ends, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the method disclosed by van der Graf to have resilient sheet roll into a cylindrical shape and expanded as taught by Maimets and be inserted in a downhole tool with narrower diameter at the ends as taught by Denison.

Referring to claim 17, Maimets teaches the resilient material comprises two mating surfaces (2,3) that mate to form the cylindrical shape.

Referring to claim 18, Maimets teaches moving the mating surfaces (2,3) changes the diameter of the material.

Referring to claim 19, Maimets teaches sealing the mating surfaces (col. 2, lines 58-59).

8. Claims 6-9 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over van der Graaf 4,220,381, in view of Denison 4,095,865 and Maimets '026 as applied to claims 3 and 13 and further in view of Penza '612.

Referring to claims 6 and 16, van der Graaf does not disclose a channel in the resilient material. Penza teaches (fig. 18) a channel (1809) in a resilient material to help accommodate transmission lines. As it would be advantageous to have a channel to help run the transmission line, it would be obvious to one of ordinary skill in the art at the time of the invention to further modify the liner and method disclosed by van der Graaf to have a channel as taught by Penza.

Referring to claim 7, Maimets teaches the resilient material comprises two mating surfaces (2,3) that mate to form the cylindrical shape.

Referring to claim 8, Maimets teaches moving the mating surfaces (2,3) changes the diameter of the material.

Referring to claim 9, Maimets teaches sealing the mating surfaces (col. 2, lines 58-59).

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over van der Graaf 4,220,381, in view of Denison 4,095,865 and Maimets '026 as applied to claim 1 and further in view of Hall et al. 6,799,632.

Van der Graf does not disclose the resilient material is maintained in place by shoulders within the downhole tool. Hall teaches (see fig. 5, at 51) a liner that is maintained in place by shoulders in a downhole tool. As it would be advantageous to have to stay in position at all times, it would be obvious to further modify the liner disclosed by van der Graf to have resilient material is maintained in place by shoulders within the downhole tool as taught by Hall.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S Patent 5,119,862 to Maimets et al. , 6,250,385 to Montaron and US. Patent Application Publication 2001/0039711 to Donnelly all disclose liners that are rolled in sheets .


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Giovanna M. Collins whose telephone number is 703-306-5707. The examiner can normally be reached on 6:30-3 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on 703-308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3672

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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